

DEFINITIONS

Action Plan – A comprehensive framework and set of actions to help support the achievement of the goal

Adsorption (onto plastic particles) – Adhesion of atoms, ions or molecules from a gas, liquid or dissolved solid to a surface; here, a plastic particle, whether nano, micro, meso or macro-sizes

Bioaccumulation – The gradual increase and accumulation of substances in an organism

Illegal trade of plastic waste – The import and export of plastic waste, usually containing toxic and hazardous materials, against legal binding policies and trade systems

Land-based sources (of pollution) – Pollution resulting from the discharge of materials or substances from the terrestrial environment to the marine environment

Macroplastics – Relatively large particles of plastic found especially in the marine environment larger than microplastics and, where applicable, mesoplastics

Mandate – In the context of an institution (government body, corporation, NGO, Charity, etc), an official written authority and terms of action devolved to this institution by the individuals or entities that established it or govern it

Marine debris – any persistent solid material, manufactured or processed, that is disposed of directly or indirectly into the marine environment. Marine debris, marine litter are often used interchangeably. Marine plastic debris (or litter) is also often used interchangeably with marine debris (or litter) although debris (or litter) can include non-plastic materials. This interchangeable use of terms results from plastic debris being dominated by plastic particles and threats of pollution from marine debris being focused on the plastic components

Marine environs – Environment in the aquatic environment where the marine plastic is found occurring, including those of marine biota, shoreline, sea surface or water column and seafloor environment (as adopted from the 2019 GESAMP report)

Marine litter – See marine debris

Marine plastics – Term commonly used to designate plastic fragments or pieces found in the marine environment. They are used interchangeably with marine plastic debris, marine plastic litter or marine plastic particles and include macro- and micro-plastic debris

Mesoplastics – Plastic particles that are visible to the naked eye, generally >1-5mm and <1-2cm

Microplastics – Small plastic particles which can be formed from the degradation of larger pieces (secondary plastic) of plastic or as-is (primary plastic). Their size definition is commonly referred to as < 5 mm or < 1 mm (i.e. < 1,000 µm). This report generally follows this definition or indicates where researchers have preferred a different size boundary

Nanoplastics – Plastic particles that result from the degradation of larger plastic particles and are of the sub-micrometre scale. No agreed size definition. Possibly <0.1 to 1mm

Plastic additives – Chemical substances contained in all plastic products for enhancing polymer properties and prolonging their life, including those of plasticizers, flame retardants, antioxidants, acid scavengers, light and heat stabilizers, lubricants, pigments, antistatic agents, slip compounds and thermal stabilizers

Plastic polymers types – Plastic type based on its chemical composition

Plastic-associated organic contaminants – Chemical substances derived from living organisms and are associated commonly with plastic, either as a plastic additive or as sorbed from the surrounding environment

Plastic-associated inorganic contaminants – Chemical substances derived from non-living organisms and are associated commonly with plastic, usually as attached/sorbed from the surrounding environment onto the surface of the plastic and usually refer to heavy metals and its compounds

Plastic sorption – The surface attachment (i.e. adsorption) or detachment (i.e. desorption) of substances on the plastic

Plastic waste – Plastic that is deemed to be at the end of its life cycle, unable to be recycled or repurposed for a new purpose as plastic scrap

Plastic scrap – Plastic that may still hold potential value and can be used for other purposes when recycled or repurposed and is therefore not plastic waste

Persistent Organic Pollutants (POPs) – A group of chemicals possessing the following characteristics: (i) highly toxic to humans and wildlife; (ii) lasts for many years in the environment before degrading into less dangerous forms; (iii) bio-accumulates in the food chain (bio-accumulation); and (iv) transported over large distances through air and water, and can be found worldwide

Primary plastic – Plastic that is purposefully manufactured to carry out a specific function (e.g. abrasive particles, powders for injection moulding, resin pellets for bulk transportation of polymers between manufacturing sites);

Sea-based sources (of pollution) – Pollution that results from the direct release (accidentally or purposely) of substances or materials into the marine environment by maritime activities e.g. shipping, fishing, offshore installations or dumping of refuse at sea

Secondary plastic – Plastic that represents the results of wear and tear or fragmentation of larger objects, both during use and following loss to the environment (e.g. textile and rope fibres, weathering and fragmentation of larger litter items, vehicle tyre wear, paint flakes)

Virgin plastic – Newly-created plastics without any components of recycled material in it, usually produced directly from petrochemical feed-stock, such natural gas or crude oil

For definitions on the 23 research foci identified in the analysis of this report, see [Part 1, Section 1.2.2](#) on the methodology of scientific research.

LIST I. PLASTIC POLYMER TYPE AND ITS ABBREVIATIONS (IF ANY)

-	Acrylic polymers	PC/ABS	Polycarbonate/acrylonitrile butadiene styrene
AN	Acrylonitrile	PCB	Polychlorinated biphenyl
ABS	Acrylonitrile butadiene styrene	-	Polyester
ASA	Acrylonitrile styrene acrylate	PAK	Polyester alkyd
-	Alkanes C10-C13	-	Polyether
-	Alkyd	PES	Polyethersulfone
-	Butadiene	-	Polyethyl acrylate
CP	Cellophane	-	Polyethyl acrylate styrene
CL	Cellulose	PE	Polyethylene
-	Dipar	PEPD	Polyethylene propylene diene
-	Epoxy (resins)	PET or PETE or or PETP or PET-P	Polyethylene terephthalate
-	Ethers	-	Polyethylene/ethylacrylate copolymer
-	Ethylene	PEP or PE/PP	Polyethylene-polypropylene copolymer
EDPM	Ethylene propylene diene monomer	-	Polyisoprene/polystyrene
EVA or PEVA	Ethylene-vinyl acetate or Polyethylene-vinyl acetate	PMMA	Polymethyl methacrylate
EPS	Expanded polyester	POM	Polyoxymethylene
XPS	Extruded polyester	-	Polyphenylene
FPS	Foamed polystyrene	PPS	Polyphenylene sulphides
GPPS	General purpose polystyrene	PP	Polypropylene
HDPE	High-density polyethylene	PP/EPR	Polypropylene/ethylene-propylene rubber
LLDPE	Linear low-density polyethylene	PP/EPDM	Polypropylene/ethylene-propylene-diene terpolymer
LDPE	Low-density polyethylene	-	Polysiloxanes/silicones
MDPE	Medium-density polyethylene	PS	Polystyrene
-	Melamine formaldehyde resins	-	Polystyrene-(ethylene-butylene)-styrene
-	Mixed PE, PP and PET	PSUL	Polysulfone
-	Nylon	PTFE	Polytetrafluoroethylene/teflon
-	Paraffin	PU or PUR	Polyurethane
-	Phenol formaldehyde resins	PVAC	Polyvinyl acetate
-	Phenoxy resin	PVA	Polyvinyl alcohol
PB	Poly(1-butene)	-	Polyvinyl butyral
-	Poly(1-octene)	PVC	Polyvinyl chloride
-	Polyacetals	-	Polyvinyl sulfate
-	Polyacrylate/styrene	PVDC	Polyvinylidene dichloride
PAN	Polyacrylonitrile	-	Rayon/viscose
PA	Polyamides	-	Resin
PAA or PARA	Polyarylamide	-	Styrene

PAE	Polyarylether	-	Styrene-acrylate
PBD	Polybutadiene	SAN	Styrene-acrylonitrile
PBMA	Polybutyl methacrylate	-	Synthetic cellulose
PBAT	Polybutylene adipate terephthalate	-	Urea formaldehyde resins
PBT	Polybutylene terephthalate	-	Urethane alkyd
PCL	Polycaprolactone	-	Vinyl
PC	Polycarbonate	-	Wax

LIST II. PLASTIC-ASSOCIATED CONTAMINANTS

Organic contaminants as plastic additives

4-MBC	4-methylbenzylidene camphor	PCB	Polychlorinated biphenyls
-	Aldrin	-	Polychlorinated dibenzo-furan (Any congener of)
BP-3	Benzophone-3	-	Polychlorinated dibenzo-p-dioxin (Any congener of)
BPA	Bisphenol-A and its analogues	PAH	Polycyclic aromatic hydrocarbon
BHT	Butylated hydroxytoluene	PHC	Polyhalogenated carbazole
-	Chlordane	SCCP	Short-chain chlorinated paraffins
DDE	Dichlorodipenyldichloroethylenes	-	Technical endosulfan and its related isomers
DDT	Dichlorodiphenyltrichloroethanes	TBC	Tris-(2,3-dibromopropyl) isocyanurate
-	Dieldrin	-	UV320
-	Endrin	-	UV326/Tinuvin 326
-	Heptachlor	-	UV327
HBCDD	Hexabromocyclododecane	-	UV328
HCB	Hexachlorobenzene	BP-12	UV531/BP-12
α-HCH	Alpha hexachlorocyclohexane	-	UvinualMC80
β-HCH	Beta hexachlorocyclohexane	Pharmaceutical drugs	
γ-HCH	Gamma hexachlorocyclohexane	TC	Tetracycline
δ-HCH	Delta hexachlorocyclohexane	SMX	Sulfamethoxazole
HEHA	Hexanoic acid, 2-ethyl-hexadecylester	CIP	Ciprofloxacin
-	Irgafos 168 and its 2 degradation products: 2,4-di-tert-butylphenol (2,4-DTBP) and tris(2,4-di-tert-butylphenyl)phosphate2)	SMT	Sulfamethazine
-	Irganox 1010	AMX	Amoxicillin
-	Irganox 1076	CEP	Cephalosporin
-	Nonachlor	PRP	Propranolol
NPs	Nonylphenol and its antioxidants, plasticisers, and degradation products	SER	Sertraline
-	Organic cyanides	SDZ	Sulfadiazine
-	Organophosphorus compounds	TMP	Trimethoprim
-	Organohalogen compounds	TYL	Tylosin
-	Organosilicon compounds	Antimicrobial agents	
PeCB	Pentachlorobenzene	TCS	Triclosan
PHSxS	Perfluorohexane sulponic acid, its salts and PHFxS-related compounds	PPCPs (pharmaceuticals and personal care products)	
PFOSA	Perfluorooctane sulfonamide	SMs	Synthetic musks
PFSO	Perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride	Others	

-	Phenols; phenol compounds including chlorophenols	-	Lubrication oil
PAE	Phthalates esters/phthalic acid esters	E2	17 β -Estradiol, E2
PBDE	Polybrominated diphenyl ethers		

Inorganic contaminants as heavy metals and its compounds

Al	Aluminium (Al)
Sb	Antimony (Sb); antimony compounds
As	Arsenic (As)
-	Asbestos (silicate dust and fibres)
At	Astatine (At)
Ba	Barium (Ba)
Be	Beryllium (Be)
Cd	Cadmium (Cd) and cadmium compounds
Cs	Cesium (Cs)
Cr	Chromium (Cr) and Hexavalent chromium compounds
Co	Cobalt (Co)
Cu	Copper (Cu)
-	Cyanides - Inorganic cyanides
-	Fluorides - Inorganic fluorine compounds excluding calcium fluoride
Fe	Iron (Fe)
Pb	Lead (Pb) and lead compounds
Mn	Manganese (Mn)
Hg	Mercury (Hg) and mercury compounds
Mo	Molybdenum (Mo)
Ni	Nickel (Ni)
Se	Selenium (Se) and selenium compounds
Ag	Silver (Ag)
Sr	Strontium (Sr)
Te	Tellurium (Te) and tellurium compounds
Sn	Tin (Sn)
Ti	Titanium (Ti)
U	Uranium (U)
V	Vanadium (V)
Zn	Zinc (Zn)

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